

§ 130A-310.68. Remediation standards.

(a) When conducting remediation activities pursuant to this Part, a person who proposes to or is required to respond to the release of a contaminant at a contaminated industrial site shall comply with one of the following standards:

- (1) The unrestricted use standards applicable to each affected medium.
- (2) The background standard, if the background standard exceeds the unrestricted use standards.
- (3) A site-specific remediation standard developed in accordance with subsection (b) of this section that is approved by the Department.
- (4) Any combination of remediation standards described in this subsection that is approved by the Department.

(b) Site-specific remediation standards shall be developed for each medium as provided in this subsection to achieve remediation that eliminates or reduces to protective levels any substantial present or probable future risk to human health, including sensitive subgroups, and the environment based upon the present or currently planned future use of the property comprising the site. Site-specific remediation standards shall be developed in accordance with all of the following:

- (1) Remediation methods and technologies that result in emissions of air pollutants shall comply with applicable air quality standards adopted by the Commission.
- (2) The site-specific remediation standard for surface waters shall be the water quality standards adopted by the Commission.
- (3) The current and probable future use of groundwater shall be identified and protected. Site-specific sources of contaminants and potential receptors shall be identified. Potential receptors must be protected, controlled, or eliminated whether the receptors are located on or off the site where the source of contamination is located. Natural environmental conditions affecting the fate and transport of contaminants, such as natural attenuation, shall be determined by appropriate scientific methods.
- (4) Permits for facilities located at sites covered by any of the programs or requirements set out in G.S. 130A-310.67(a) shall contain conditions to avoid exceedances of applicable groundwater standards adopted by the Commission pursuant to Article 21 of Chapter 143 of the General Statutes due to operation of the facility.
- (5) Soil shall be remediated to levels that no longer constitute a continuing source of groundwater contamination in excess of the site-specific groundwater remediation standards approved under this Part.
- (6) Soil shall be remediated to unrestricted use standards on residential property with the following exceptions:
 - a. For mixed-use developments where the ground level uses are nonresidential and where all potential exposure to contaminated soil has been eliminated, the Department may allow soil to remain on the site in excess of unrestricted use standards.
 - b. If soil remediation is impracticable because of the presence of preexisting structures or impracticability of removal, all areas of the real property at which a person may come into contact with soil shall be remediated to unrestricted use standards, and, on all other areas of the real property, engineering and institutional controls that are

sufficient to protect public health, safety, and welfare and the environment shall be implemented and maintained.

- (7) The potential for human inhalation of contaminants from the outdoor air and other site-specific indoor air exposure pathways shall be considered, if applicable.
- (8) The site-specific remediation standard shall protect against human exposure to contamination through the consumption of contaminated fish or wildlife and through the ingestion of contaminants in surface water or groundwater supplies.
- (9) For known or suspected carcinogens, site-specific remediation standards shall be established at exposures that represent an excess lifetime cancer risk of one in 1,000,000. The site-specific remediation standard may depart from the one-in-1,000,000 risk level based on the criteria set out in 40 Code of Federal Regulations § 300.430(e)(9)(July 1, 2003 Edition). The cumulative excess lifetime cancer risk to an exposed individual shall not be greater than one in 10,000 based on the sum of carcinogenic risk posed by each contaminant present.
- (10) For systemic toxicants, site-specific remediation standards shall represent levels to which the human population, including sensitive subgroups, may be exposed without any adverse health effect during a lifetime or part of a lifetime. Site-specific remediation standards for systemic toxicants shall incorporate an adequate margin of safety and shall take into account cases where two or more systemic toxicants affect the same organ or organ system.
- (11) The site-specific remediation standards for each medium shall be adequate to avoid foreseeable adverse effects to other media or the environment that are inconsistent with the risk-based approach under this Part. (2011-186, s. 2.)